## Central CA soaker

After a relatively dry period, the rain came back over the King Holiday weekend. An interesting, but challenging weather pattern is shaping up.

Cut-off lows, which are low pressure systems meandering over the west coast or Eastern Pacific, are very difficult to forecast. They are essentially separate from, or "cut off" from the general jet stream flow. The tend to wobble, wander, and trick computer models. The associated moisture moving counterclockwise around those lows is tough to pinpoint in terms of timing and intensity, due to the aimless nature of the upper low's movement. They are notorious for busted forecasts, and we may have one of those underway right now.

Here's what's going on. One cutoff low has been off the San Francisco coast for a couple of days; hence southerly flow over CA, goodly precip in Sacramento (1.75" in 2 days), and rather heavy rain in the east-west mountain ranges of Southern California (~3" since 4am today). We have low snow being reported because the center of that large low pressure

system is very deep and cold. Another low pressure center will burrow south along the west coast from the north/ northwest over the weekend.

So, as the current one weakens and 'opens up' (central pressure begins to rise), another will fill that same general geographic spot by this weekend. The second one is perhaps even more potent, but the models are having a tough time plotting its location from run to run. It may 'retrograde,' which means pull westward, further off-shore.

As of this writing, here are some of the forecast trends. Bear in mind, amounts could be much lower if the low center ends up further west, but possibly much higher if the next low Thursday night through Saturday parks right off the coast. The right timing could produce very strong winds along the coast, and in the coastal mountains.

By 4am Saturday:

Santa Barbara/ Ventura Co. Mtns. 4-7"
Santa Cruz/ Santa Lucia Mtns./ LA Higher elevations 4-5"
Monterey County 3-5"

>From Saturday to Monday, local amounts statewide range from 2-8 additional inches of precip.

The Sierra will be impacted a bit less for this stretch of storms, as the cyclonic flow around the low brings a southeast to easterly wind during much of the event. That's not a big rain/snow maker for the Sierra. Nonetheless, snow is making news, and will continue to do so over the Golden State. Levels will be near 2,000' Northern CA, to 4,000' Southern CA tonight and tomorrow, as this low passes.

Thunderstorms are a possibility, too. Friday and Saturday, even though the low is very cold, warm air advection will occur over much of central and southern CA at least initially. Higher snow levels are expected Saturday, but they will drop whenever that next low does progress across the state.

For the myriad of watches and warnings, and to watch forecasts perhaps oscillate a bit in coming days, go to:

## http://www.wrh.noaa.gov/cnrfc/warnings.php

They actual must oscillate a bit to keep up with potentialities of these "cutoff" lows. These are the types of situations that give meteorologists' reputations a beating. It's not that we are poorer at forecasting. The general public sees rain on a "Friday" and assumes if its nice out, the forecast was wrong. In actuality, it may pour rain that night, and arrive 12 hours late. As one forecaster friend of mine says, "there is no such thing as a bad forecast. Only bad timing." :) JJ. Well, it's not the stock market, but there are swings in the numbers in situations like this.

While it may not curb talk of drought entirely, this season is shaping up nicely for Southern California precip. Right now, downtown LA is at 99% of normal, with 6.11". Compare that to last year's season to date at 1.32"! In Sacramento, we've had 5.03" of rain since July 1, but that's not counting today. Our seasonal to date rainfall total stands at 107% of normal. The 8Station Northern Sierra precipitation index is at about 82% for the season.

Some other Water Year precipitation percentages of normal (Water year begins October 1st):

Ft. Seward 92%
McCloud Dam 81%
Russian-Cloverdale 70%
Dorris Ranch 80%
Mt. Rose Ski site 69%
Copperopolis 73%
Buchanan Dam 91%
Fremont Peak 115%
Paso Robles 114%
Cachuma Dam 102%
Beach Meadows 85%
Palomar Mtn. 128%
Lamoille, NV 84%

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